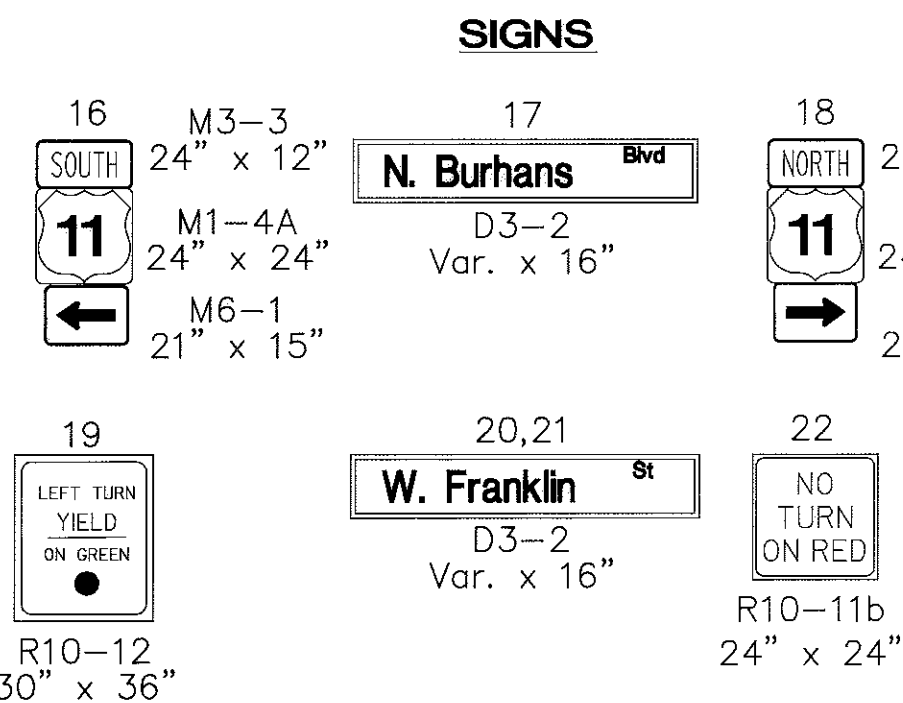
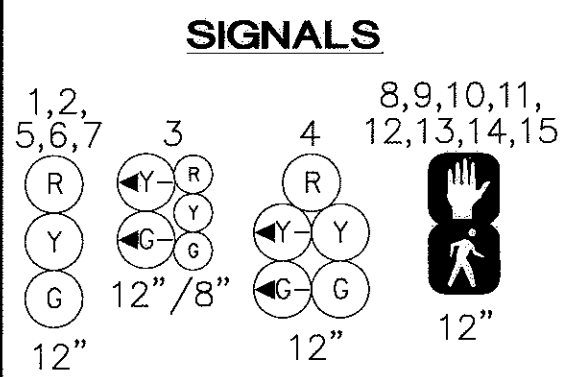
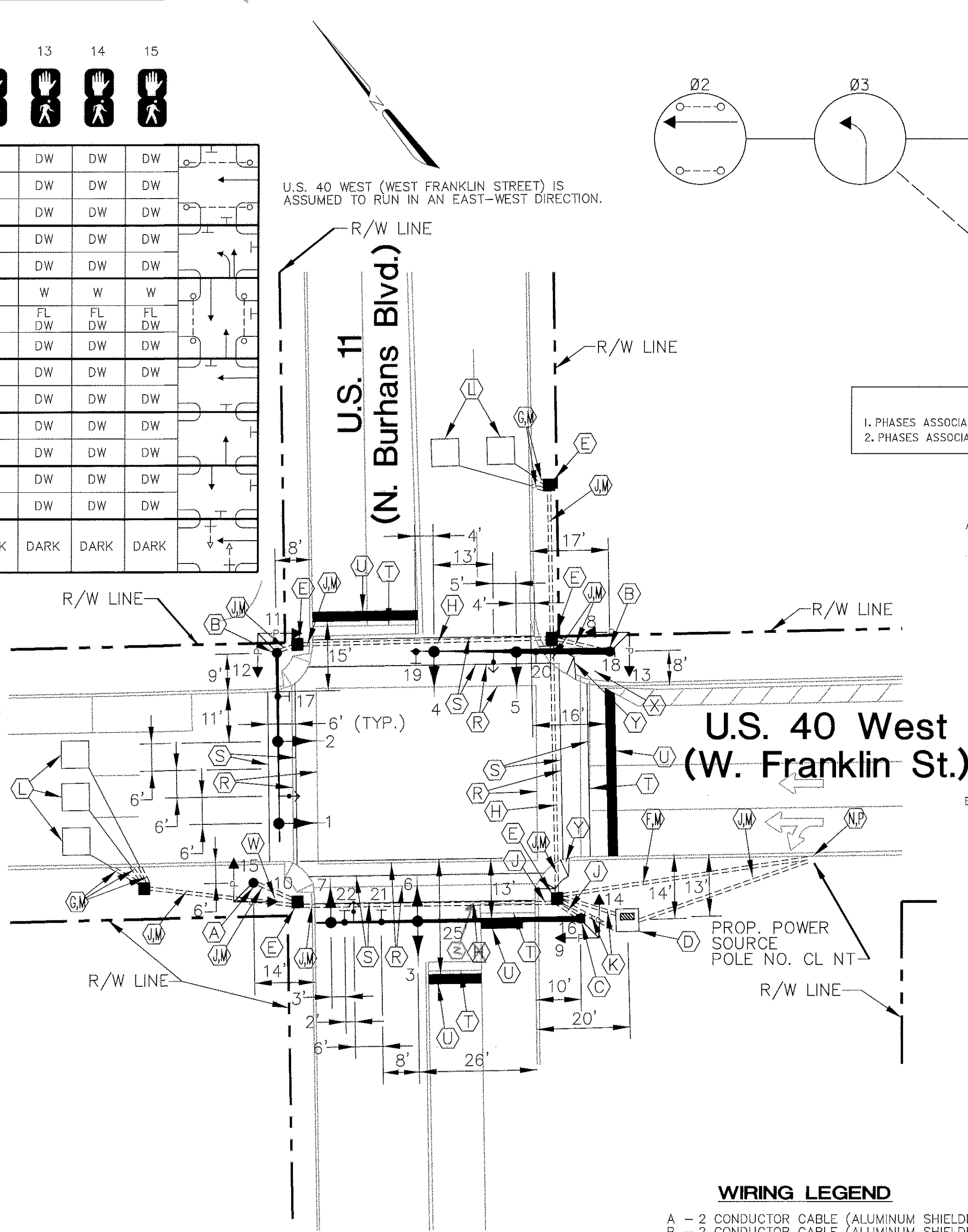


PHASING DIAGRAM														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 2	G	G	R	R	R	R	R	W	W	W	W	DW	DW	DW
2 PED. CLEAR	G	G	R	R	R	R	R	FL DW	FL DW	FL DW	FL DW	DW	DW	DW
2 CHANGE	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8	R	R	G	G	G	G	R	DW	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	G	G	G	G	R	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	G	G	G	G	G	DW	DW	DW	DW	W	W	W
4 & 8 PED. CLEAR	R	R	G	G	G	G	G	DW	DW	DW	DW	FL DW	FL DW	FL DW
4 & 8 CHANGE	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW
PRE-EMPTION A	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
A CHANGE	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
PRE-EMPTION B	R	R	G	G	G	G	R	DW	DW	DW	DW	DW	DW	DW
B CHANGE	R	R	G	G	G	G	R	DW	DW	DW	DW	DW	DW	DW
PRE-EMPTION C	R	R	R	R	R	G	G	DW	DW	DW	DW	DW	DW	DW
C CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK



- CONSTRUCTION DETAILS**
- (A) INSTALL 10' STEEL PEDESTAL POLE, PEDESTRIAN SIGNALS (NOTE 1-2", 90-DEGREE P.V.C. BEND).
- (B) INSTALL 21' STEEL POLE, 44' MAST ARM, SIGNAL HEADS, SIGNS, OPTICOM DETECTOR, PEDESTRIAN SIGNALS (NOTE: 1-2", 90-DEGREE P.V.C. BEND).
- (C) INSTALL 21' STEEL POLE, 58' MAST ARM, SIGNAL HEADS, SIGNS, OPTICOM DETECTOR, PEDESTRIAN SIGNALS (NOTE: 1-2", 90-DEGREE P.V.C. BEND).
- (D) INSTALL BASE-MOUNTED CABINET, SIZE #5, AND CONTROLLER WITH ALL NECESSARY EQUIPMENT AS SHOWN (NOTE: 2-4", 90-DEGREE P.V.C. BENDS; AND, 2-2", 90-DEGREE P.V.C. BENDS.).
- (E) INSTALL HANDHOLE.
- (F) INSTALL 3" P.V.C. (SCHEDULE 40) ELECTRICAL CONDUIT (TRENCHED).
- (G) INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT SLEEVE FOR DETECTOR WIRING.
- (H) INSTALL 2" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (SLOTTED).
- (J) INSTALL 2" P.V.C. (SCHEDULE 40) ELECTRICAL CONDUIT (TRENCHED).
- (K) INSTALL 4" P.V.C. (SCHEDULE 40) ELECTRICAL CONDUIT (TRENCHED).
- (L) INSTALL 6' X 6' SAMPLING LOOP DETECTOR ENCASED IN 1/4" FLEXIBLE TUBING (4 TURNS)
- (M) REMOVE AND REPLACE EXISTING SIDEWALK.
- (N) INSTALL 3" P.V.C. (SCHEDULE 80) ELECTRICAL - RISER AND 3" WEATHERHEAD.
- (P) INSTALL 10' OF 2" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT - RISER AND COIL 25' OF ADDITIONAL CABLE.
- (R) REMOVE EXISTING CROSSWALK LINES.
- (S) INSTALL 12" SOLID WHITE LINE FOR CROSSWALKS.
- (T) REMOVE EXISTING STOP BAR.
- (U) INSTALL 24" SOLID WHITE LINE.
- (W) REMOVE EXISTING STEEL POLE, MAST ARMS, SIGNALS, SIGNS, CABINET, CONTROLLER OPTICOM DETECTORS AND FOUNDATION.
- (X) REMOVE EXISTING STEEL POLE, MAST ARM, SIGNALS, SIGNS, OPTICOM DETECTOR AND FOUNDATION.
- (Y) RECONSTRUCT SIDEWALK RAMP. *INSTALL 3" P.V.C. SCHEDULE 80 CONDUIT - SLOTTED*

UTILITY LEGEND		
— G —	G	GAS MAIN
— W —	W	WATER MAIN
— S —	S	SEWER MAIN
=====		STORM DRAIN
— TV —	TV	CABLE TELEVISION
— E —	E	ELECTRIC CABLES
— T —	T	TELEPHONE CABLES
— A —	A	AERIAL CABLES



INTERSECTION DESCRIPTION

I. GENERAL

THIS INTERSECTION IS U.S. 40 WEST (WEST FRANKLIN STREET) AND U.S. 11 (NORTH BURHANS BOULEVARD). CONSTRUCTION AT THIS INTERSECTION INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AND INTERCONNECTION WITH THE OTHER SIGNALIZED INTERSECTIONS IN THE NEW CITY-WIDE SYSTEM. IT IS ASSUMED THAT U.S. 40 WEST (WEST FRANKLIN STREET) RUNS IN AN EAST-WEST DIRECTION.

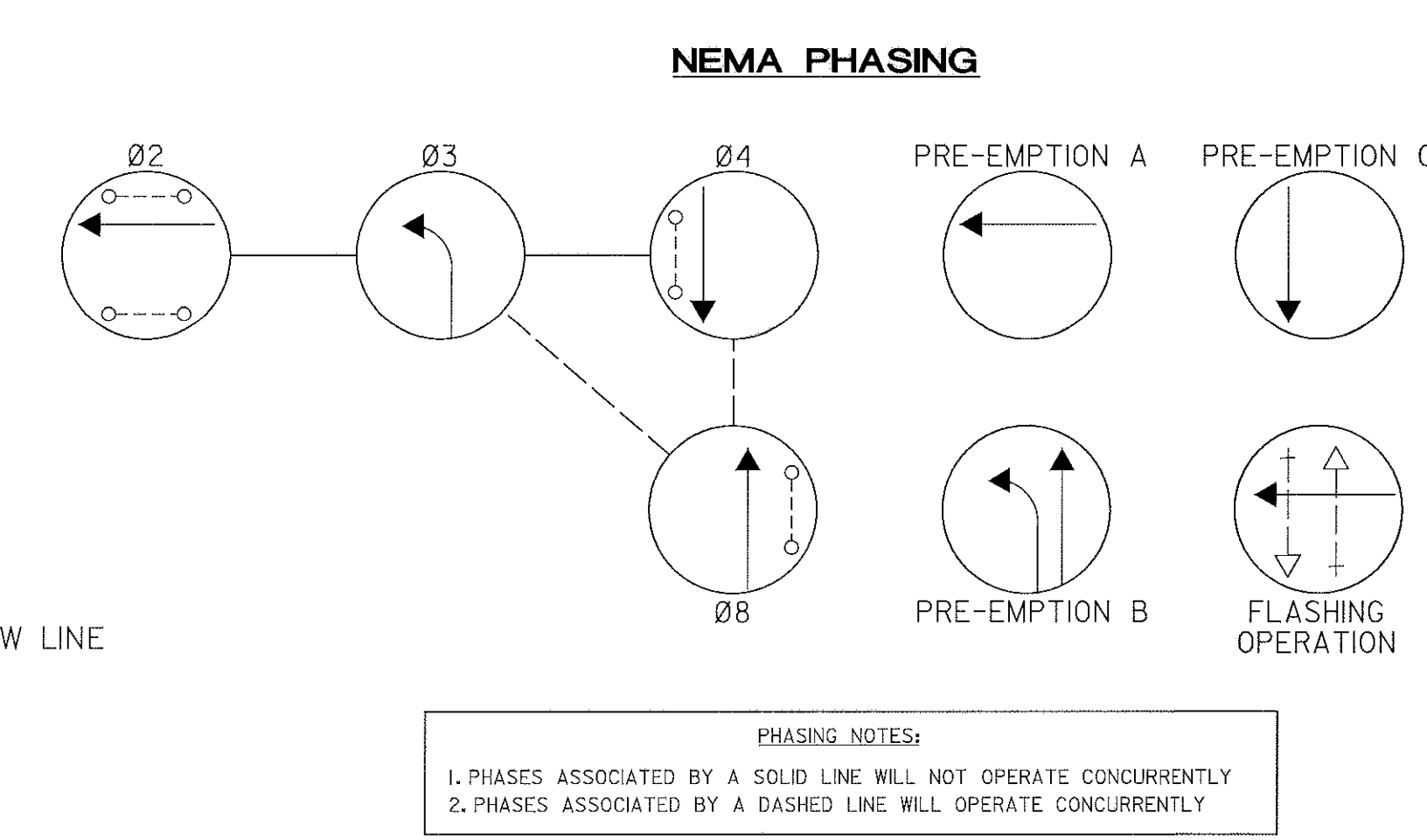
II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR (4) PHASE PRE-TIMED MODE. WESTBOUND U.S. 40 WEST (WEST FRANKLIN STREET) AND U.S. 11 (NORTH BURHANS BOULEVARD) WILL OPERATE IN SEPARATE PHASES. THE NORTHBOUND U.S. 11 (NORTH BURHANS BOULEVARD) LEFT TURNS WILL OPERATE IN EXCLUSIVE/PERMISSIVE PHASES. NORTHBOUND AND SOUTHBOUND U.S. 11 (NORTH BURHANS BOULEVARD) WILL OPERATE CONCURRENTLY. PEDESTRIAN SIGNALS WILL OPERATE CONCURRENTLY WITH THE WESTBOUND U.S. 40 WEST (WEST FRANKLIN STREET) PHASE. PEDESTRIAN SIGNALS WILL OPERATE CONCURRENTLY WITH THE NORTHBOUND AND SOUTHBOUND U.S. 11 (NORTH BURHANS BOULEVARD) PHASES.

PRE-EMPTION ON WESTBOUND U.S. 40 WEST (WEST FRANKLIN STREET) WILL CALL PRE-EMPTION A. PRE-EMPTION ON NORTHBOUND U.S. 11 (NORTH BURHANS BOULEVARD) WILL CALL PRE-EMPTION B. PRE-EMPTION ON SOUTHBOUND U.S. 11 (NORTH BURHANS BOULEVARD) WILL CALL PRE-EMPTION C.

A NEW EIGHT PHASE FULLY ACTUATED CONTROLLER WITH TWO (2) FOUR-CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, TELEMETRY MODULE, AND PRE-EMPTION HOUSED IN A GROUND MOUNTED CABINET WILL BE INSTALLED.

A/E GROUP, INC.
ENGINEERS • PLANNERS
181 E. Main Street
Westminster, Maryland 21158
A/E Job No. 95-289



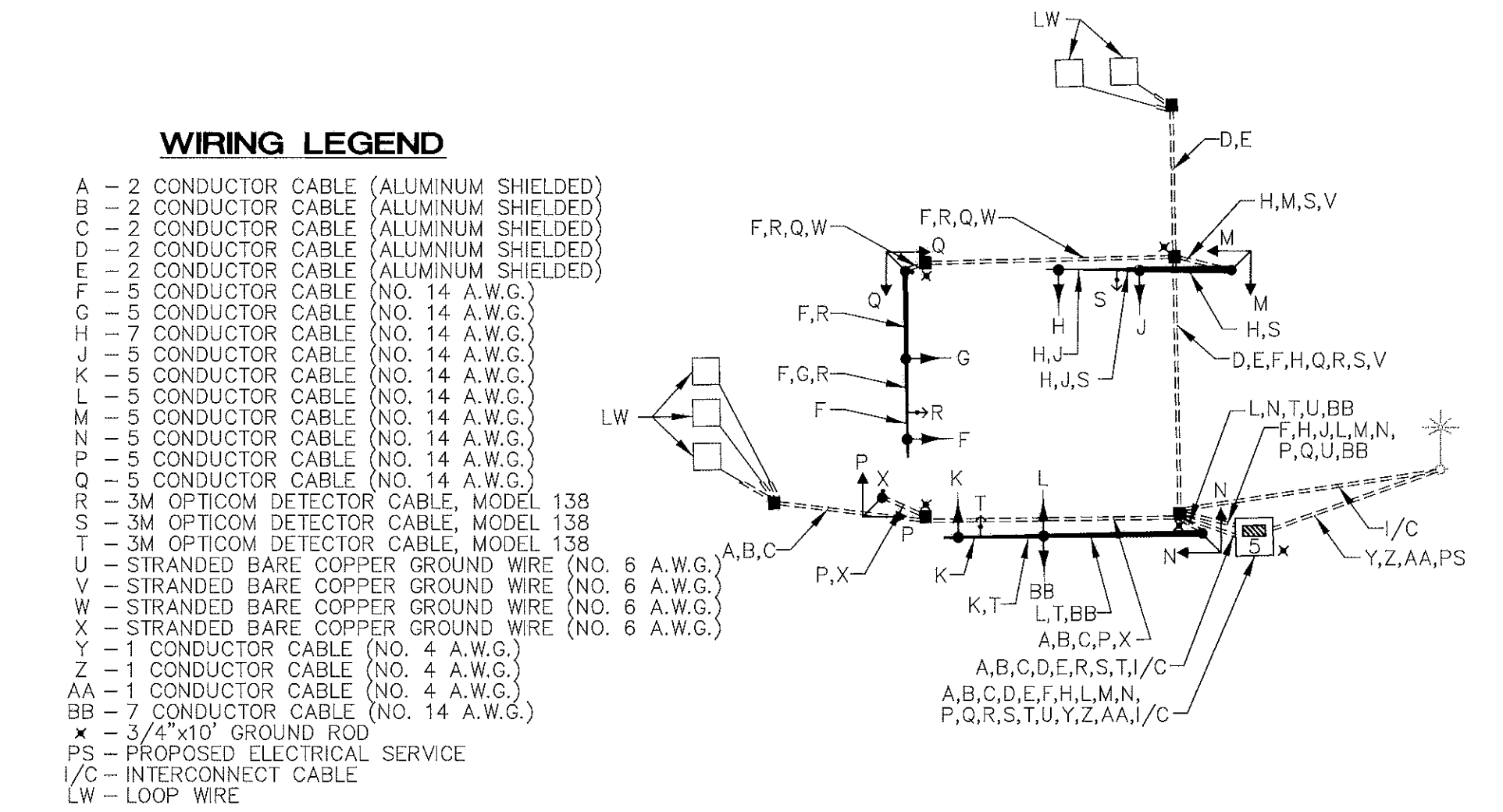
EQUIPMENT LISTS

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1	EA	SP	BASE MOUNTED LOCAL CABINET (SIZE 5) WITH DETECTION EQUIPMENT WITH 8 PHASE ASC II CONTROLLER WITH TELEMETRY AND OPTICOM PRE-EMPTION MODULE
60	SF	813	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: - 1 EACH R10-11b (24" X 24")-MAST ARM MOUNT - 1 EACH R10-12 (30" X 36")-MAST ARM MOUNT - 2 EACH M1-4a(11) (24" X 24")-POLE MOUNT - 1 EACH M3-1 (24" X 12")-POLE MOUNT - 1 EACH M3-3 (24" X 12")-POLE MOUNT - 2 EACH M6-1 (21" X 15")-POLE MOUNT - 2 EACH D3-2 (W. Franklin St) (VAR." X 16")-MAST ARM MOUNT - 1 EACH D3-2 (N. Burhans Blvd) (VAR." X 16")-MAST ARM MOUNT

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
5	CY	205	TEST PIT EXCAVATION
21	CY	206	REMOVAL OF EXISTING SIDEWALK
375	LF	SP 555	12 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
100	LF	SP 555	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
450	LF	SP	REMOVE EXISTING PAVEMENT MARKINGS- ANY WIDTH
1625	SF	610	4 INCH CONCRETE SIDEWALK
1	EA	816	INSTALL CONTROLLER AND CABINET- BASE MOUNT
60	SF	813	INSTALL OVERHEAD SIGN
65	LF	804	FURNISH AND INSTALL 3" SCHEDULE 80 CONDUIT SLOTTED



NOTE: EXISTING RIGHT-OF-WAY BASED ON INFORMATION PROVIDED BY THE CITY OF HAGERSTOWN.

REVISIONS	APPROVALS	MDOT - STATE HIGHWAY ADMINISTRATION			
		Office of Traffic & Safety			
		TRAFFIC ENGINEERING DESIGN DIVISION			
	CHIEF, SIGNAL DESIGN SECTION	DRAWN BY: M. GESELL	US 40 West (West Franklin St.) at US 11 (North Burhans Blvd.)		
	ASST. DISTRICT ENGINEER, TRAFFIC	DES. BY: J. LAWRENCE			
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	CHK. BY: M. G. 6-7-99			
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	DATE: 05/30/97	F.A.P. NO. STPG-218-1(7)E	TS. NO. 3695	SHEET NO. 12 OF 66
		SCALE: 1" = 20'	S.H.A. NO. WA9535185	COUNTY: WASHINGTON	